What is claimed is:

1. A radiation image read-out apparatus comprising a stimulating light beam projecting means which projects a line stimulating light beam onto a stimulable phosphor sheet, storing thereon radiation image information, to extend in a main scanning direction, a line sensor consisting of a plurality of photoelectric convertor elements which receive stimulated emission emitted from the portion exposed to the line stimulating beam to convert the amount of stimulated emission to an electric signal and are arranged in a row which extends along the line portion of the stimulable phosphor sheet exposed to the line stimulating beam, a condenser lens which is disposed along the line sensor to collect the stimulated emission on the light receiving face of the line sensor and a sub-scanning means which moves one of the line sensor and the stimulable phosphor sheet relatively to each other in a sub-scanning direction intersecting the main scanning direction, wherein the improvement comprises that

said condenser lens has a chromatic aberration of magnification in the sub-scanning direction such that most of the light in the wavelength range of the stimulated emission is collected on the light receiving face of the line sensor and most of the light in the wavelength range of the stimulating light is collected outside the light receiving face of the line sensor.

2. A radiation image information read-out apparatus as

defined in Claim 1 in which the effective width of the photoelectric convertor element as measured in the direction perpendicular to the longitudinal direction of the line sensor is 20μm to 300μm.

3. A radiation image information read-out apparatus as defined in Claim 1 in which a stimulating light cut filter which is permeable to the stimulated emission and impermeable to the stimulating light is disposed between the line sensor and the stimulable phosphor sheet.

4. A radiation image information read-out apparatus as defined in Claim 1 in which the condenser lens is not larger in the distance of dispersion of incident light on the condenser lens in the longitudinal direction of the light receiving face of the line sensor than that in the direction perpendicular to the longitudinal direction of the light receiving face of the line sensor as measured on the light receiving face of the line sensor.

5. A radiation image read-out apparatus comprising a stimulating light beam projecting means which projects a line stimulating light beam onto a stimulable phosphor sheet, storing thereon radiation image information, to extend in a main scanning direction, a line sensor consisting of a plurality of photoelectric convertor elements which receive stimulated emission emitted from the portion exposed to the line stimulating beam to convert the amount of stimulated emission to an electric signal and are arranged in a row which

extends along the line portion of the stimulable phosphor sheet exposed to the line stimulating beam, a condenser lens which is disposed along the line sensor to collect the stimulated emission on the light receiving face of the line sensor and a sub-scanning means which moves one of the line sensor and the stimulable phosphor sheet relatively to each other in a sub-scanning direction intersecting the main scanning direction, wherein the improvement comprises that

the following formula (1) is satisfied,

$$\frac{1(mm)}{\lambda a(nm) - \lambda b(nm)} \leq \frac{\Delta d(mm)}{\Delta \lambda(nm)} \quad \cdots\cdots (1)$$

wherein λa(nm) represents the center wavelength of the stimulating light, λb(nm) represents the center wavelength of the stimulated emission, $\Delta\lambda$(nm) represents the wavelength difference between the longest wavelength and the shortest wavelength of the incident light components on the condenser lens and Δd(mm) represents the distance of dispersion on the light receiving face of the incident light components on the condenser lens.

6. A radiation image information read-out apparatus as defined in Claim 5 in which the following formula (2) is satisfied

$$\frac{\Delta d(mm)}{\Delta \lambda(nm)} \leq \frac{0.4(mm)}{\Delta \lambda b/2(nm)} \quad \cdots\cdots (2)$$

wherein $\Delta\lambda$b(nm) represents the width of the wavelength range of the stimulated emission.

7. A radiation image information read-out apparatus as defined in Claim 5 in which the effective width of the photoelectric convertor element as measured in the direction perpendicular to the longitudinal direction of the line sensor is 20μm to 300μm.

8. A radiation image information read-out apparatus as defined in Claim 5 in which a stimulating light cut filter which is permeable to the stimulated emission and impermeable to the stimulating light is disposed between the line sensor and the stimulable phosphor sheet.

9. A radiation image information read-out apparatus as defined in Claim 5 in which the condenser lens is not larger in the distance of dispersion of incident light on the condenser lens in the longitudinal direction of the light receiving face of the line sensor than that in the direction perpendicular to the longitudinal direction of the light receiving face of the line sensor as measured on the light receiving face of the line sensor.